



CHINA INTERNATIONAL CO.  
SHENZHEN FURUIER PHOTOELECTRIC CO., LTD.

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## SPECIFICATION FOR APPROVAL

CUSTOMER : oomlout

ARTICLE :  $\phi 5$  Round Clolor diffused Red LED

PART NO : FLR-50A03-SR7

DATE : 2009-07-10

CUSTOMER MODEL:

RoHS PRODUCT

### Authorized Signature

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ATTENTION  
OBSERVE PRECAUTIONS  
ELECTROSTATIC  
SENSITIVE DEVICES

☐ Absolute Maximum Rating

| Item                       | Symbol | Absolute Maximum Rating | Unit |
|----------------------------|--------|-------------------------|------|
| Forward Current            | IF     | 20                      | mA   |
| Peak Forward Current       | IFP    | 80                      | mA   |
| Reverse Voltage            | VR     | 5                       | V    |
| Power Dissipation          | PD     | 60                      | mW   |
| Operation Temperature      | Topr   | -35~+80                 | ℃    |
| Storage Temperature        | Tstg   | -40~+80                 | ℃    |
| Lead Soldering Temperature | Tsol   | Max. 260° for 3sec Max. |      |

\*IFP Conditions:Pulse Width≤10msec duty≤1/10

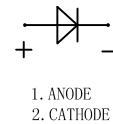
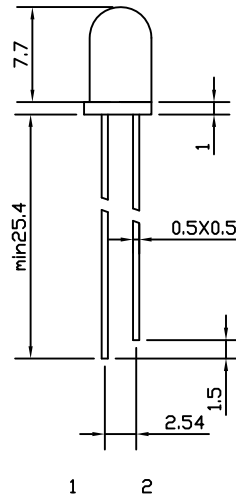
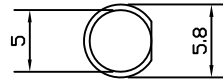
\*Tsol Conditions:4mm from the base of the epoxy bulb

☐ Typical Optical/Electrical Characteristics

| Item                      | Symbol  | Condition | Min. | Typ.  | Max. | Unit |
|---------------------------|---------|-----------|------|-------|------|------|
| Forward Voltage           | VF      | IF=20mA   | —    | 2.0   | 2.3  | V    |
| Reverse Current           | IF      | VR=5V     | —    | —     | 10   | uA   |
| 50% Power Angle           | 2 θ 1/2 | IF=20mA   | —    | 25    | —    | deg  |
| Luminous Intensity        | IV      | IF=20mA   | 2500 | 3500  | —    | mcd  |
| Peak Wavelength           | λ p     | IF=20mA   | 620  | 623   | 625  | —    |
| Recommend Forward Current | IF(rec) | —         | —    | 10~20 | —    | mA   |

**Notes:**

- 1.Absolute maximum ratings Ta=25° C .
- 2.Tolerance of measurement of forward voltage±0.1V.
- 3.Tolerance of measurement of peak Wavelength±2.0nm.
- 4.Tolerance of measurement of luminous intensity±15%.

☐ Package Dimensions And Materials

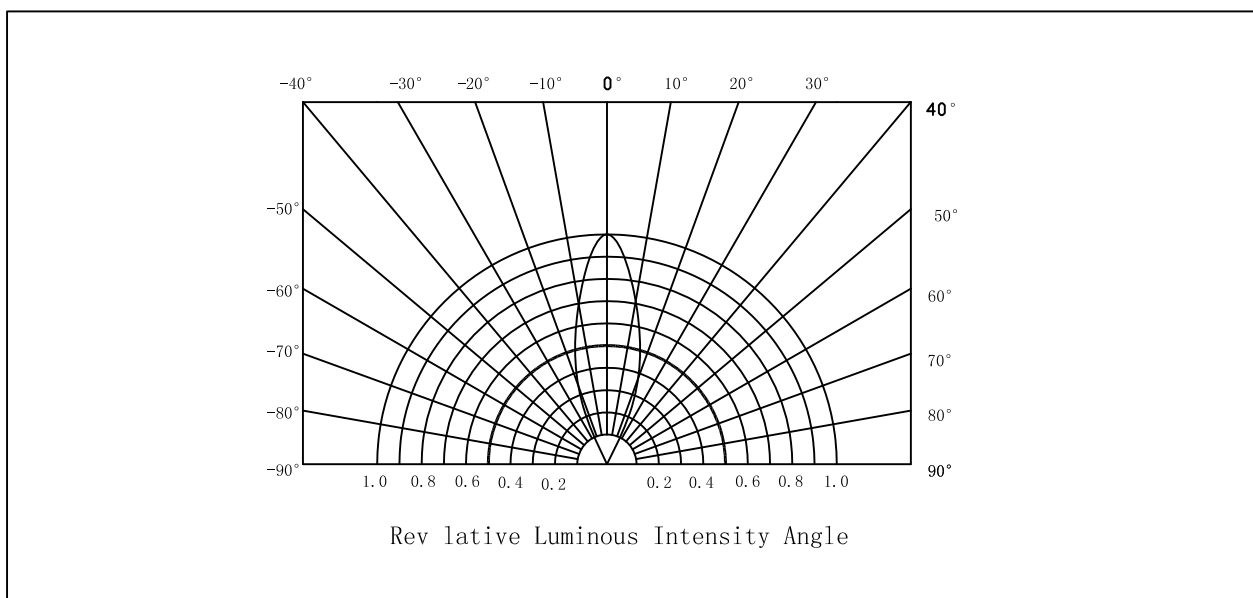
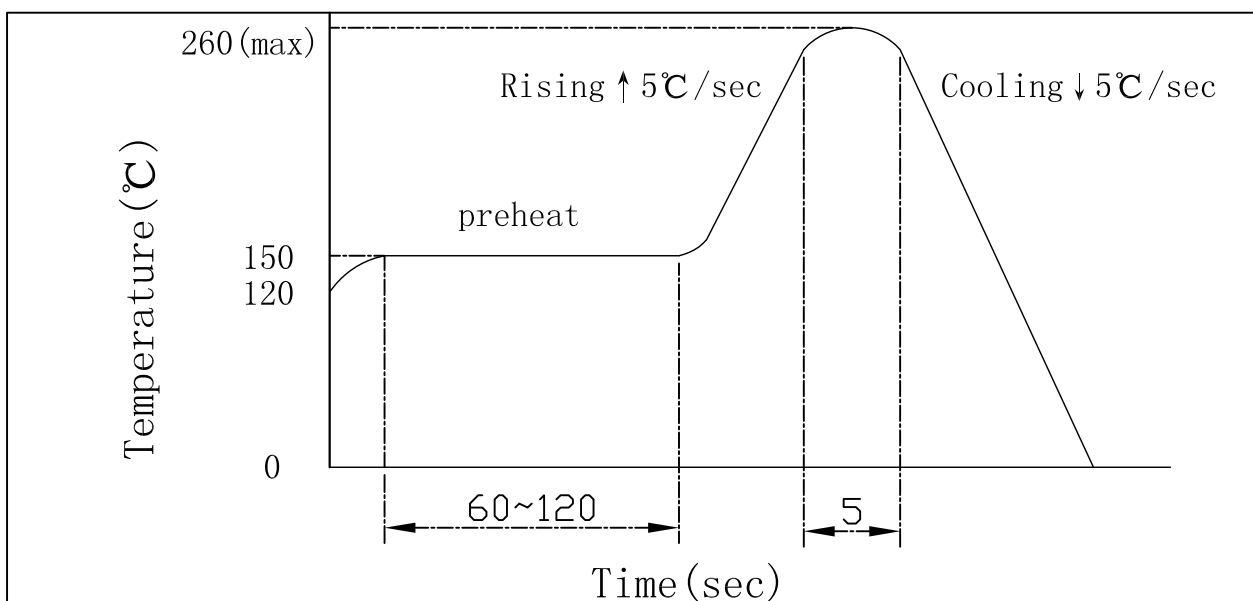
1. ANODE  
2. CATHODE

☐ 0.5 SQUARE\*2

| Chip          |                | Lens Color     |
|---------------|----------------|----------------|
| Dice Material | Emitting Color |                |
| AlGaInP       | Red            | White diffused |
|               |                |                |

**Notes:**

- 1.All dimension units are millimeters
- 2.All dimension tolerance is  $\pm 0.2\text{mm}$  unless otherwise noted
- 3.An epoxy meniscus may extend about 1.5mm down the leads
- 4.Burr around bottom of epoxy may be 0.5mm max

☐ Spatial Distribution☐ Reflow Temp/Time☐ Soldering iron

Basic spec is  $\leq 5$ sec when 260°C. If temperature is higher, time should be shorter (+10°C-1sec) Power dissipation of iron should be smaller than 15W, and temperatures should be controllable. surface temperature of the device should be under 230°C